

Claims

1. A method for transferring objects, particularly tablets, capsules, coated tablets, pills or the like from a supply vessel (1) to blisters (2) in a foil (3), moving in a continuous or step-wise manner, transfer blisters (6) being formed in a transfer belt (4) corresponding in their position to the position of the blisters (2) in the foil (3), the transfer belt (4) in the form of an endlessly running belt being positioned on a first and on a second deflection roller (5) for subsequent filling with the objects from the supply vessel (1), for sorting the objects into the transfer blisters (6) and for their transfer to a plurality of placers (9) by means of which the objects are directly picked up from the transfer blisters (6) and transferred to the blisters (2).

2. The method according to claim 1, characterized in that the transfer belt (4) that is designed as a disposable transfer belt (4), is removed from the deflection rollers (5) and disposed of after fulfilling an exclusion criterion and is replaced by a new transfer belt.

3. The method according to claim 1 or 2, characterized in that the transfer belt (4) is oriented perpendicular to the travel direction of the foil (3).

4. The method according to claim 1 or 2, characterized in that the transfer belt (4) is oriented parallel to the travel direction of the foil (3).

5. The method according to one of claims 1 to 4, characterized in that at least one section of at least an upper reach of the transfer belt (4) is led upward in the transport direction.

10 6. The method according to one of claims 1 to 5, characterized in that the deflection roller (5) facing the foil (3) is a drive roller and the transfer belt (4) is driven in to a reciprocating movement.

15 7. The method according to claim 6, characterized in that the drive roller is provided with recesses (10) for the form-fit reception of the transfer blisters (6), with the recesses providing the drive of the transfer belt (4).

20 8. The method according to one of claims 1 to 7, characterized in that in order to form the transfer belt (4) at least two transfer blisters (6) are plugged together circumferentially for the realization of a positive locking and the free ends of the transfer belt (4) are permanently connected.

9. The method according to claim 8, characterized in that edges of the transfer belt (4) are cut after the shaping of the transfer blisters (6) to match the working width of the belt.

5 10. The method according to one of claims 1 to 9, characterized in that a plurality of transfer belts (4) are formed and mounted such that they are adjacent to each other and are intermittently driven.

10 11. The method according to claim 10, characterized in that synchronization of the adjacent transfer belts (4) is carried out by means of the drive roller.

15 12. The method according to one of claims 8 to 11, characterized in that a sensor juxtaposed with the transfer belt (4) detects the overlapping area of the formerly free ends of the transfer belt (4) and the placer (9) accordingly adjusts the picking of the objects dependant on the sensor signal.

20 13. A device for carrying out the method according to one of claims 1 to 12, characterized by a supply vessel (1) for holding the objects that is mounted above a transfer belt (4) with a plurality of transfer blisters (6) placed in positions corresponding to the positions of the blisters (2) in the foil (3) to be filled and that is led around two deflection rollers (5) and is directed toward the foil (3), as well as by a placer (9) for the

direct transfer that separately picks the objects up from the transfer blisters (6) and places them in the blisters (2) of the foil (3).

14. The device according to claim 13, characterized in
5 that the placers are provided in a pick-and-place system with a plurality of pickers, particularly suckers or grippers, by means of which the objects can be removed from the transfer blisters (6), transferred to and placed in the blisters (2), and that the pickers are mounted in positions corresponding to positions of the blisters
10 (2) or respectively of the transfer blisters (6).

15. The device according to claim 13 or 14,
characterized in that the deflection roller (5) is a drive roller and thus connected with a drive and is provided with recesses (10) in its outer surface, corresponding in their positions to positions
15 of the transfer blisters (6).

16. The device according to one of claims 13 to 15,
characterized in that a collecting tray (11) is mounted beneath the transfer belt.

17. The device according to one of claims 13 to 16,
20 characterized in that a conveyor belt for the return transport of the surplus objects on the transfer belt (4) is oriented parallel to the transfer belt (4).

18. The device according to claim 16 or 17,
characterized in that there are a plurality of such transfer belts
(4) and that the transfer belts (4) are mounted parallel to each
other and are synchronized by means of the drive roller.

5 19. The device according to one of claims 16 to 18,
characterized in that a servomotor is provided for driving the
drive roller.

10 20. The device according to one of claims 13 to 18,
characterized in that a flow obstacle (7), particularly a scraper,
is mounted above the transfer belt (4), preferably inclined to the
direction of transportation of the latter.

15 21. The device according to one of claims 13 to 20,
characterized in that the supply vessel (1) as well as the transfer
belt (4) with the deflection rollers (5) and the drive are mounted
on a mobile rack (8).

22. The device according to one of claims 13 to 21,
characterized in that a satellite station is provided for the
formation of the transfer belt (4).

20 23. The device according to claim 22, characterized in
that the transfer belt (4) consists of a thermoplastic foil and in

that a forming tool for shaping the transfer blisters (6) is removably mounted in the satellite station.

24. The device according to one of claims 13 to 23,
characterized in that the transfer blisters (6) in the transfer
5 belt (4) are of smaller vertical dimension than the objects to be placed in the transfer blisters (6).

25. The device according to one of claims 13 to 24,
characterized in that a swivel plate (12) is juxtaposed with an upper reach of the transfer belt (4).

10 26. The device according to one of claims 13 to 25,
characterized in that a camera (13) for monitoring the objects after their removal from the transfer blisters (6) before the transfer into the blisters (2) is mounted beneath the placers (9).